

ENCLOSURE 4

STATE OF CALIFORNIA SUPPLEMENTAL INFORMATION TO SUPPORT RECOMMENDED NONATTAINMENT AREA FOR THE 2008 FEDERAL LEAD STANDARD

Los Angeles County - South Coast Air Basin

The presumptive boundary for a lead nonattainment area is the boundary of the county in which the violating monitor(s) is located. However, the Air Resources Board (ARB) recommends the Los Angeles County lead nonattainment area not be defined as the entire County, but be limited to the portion of the County within the South Coast Air Basin (South Coast). As described below, this recommendation is based on the characteristics of lead emissions, concentrations measured at other monitors in the surrounding area, and existing jurisdictional boundaries and emissions control rules.

The South Coast portion of Los Angeles County is home to several lead-related industrial sources. These facilities are Daelco Division of Quenell Inc. in the City of Commerce, Quemetco, Inc. in the City of Industry, Trojan Battery Company in Santa Fe Springs, and Exide Technologies in Vernon. The four facilities are located within a 20 mile radius in southern portion of the County. In 1992, the South Coast Air Quality Management District (District) adopted Rule 1420: Emissions Standard for Lead. The purpose of Rule 1420 is to reduce lead emissions from non-vehicular sources. It applies to all facilities that use or process materials containing lead, including primary or secondary lead smelters, foundries, and lead-acid battery manufacturers or recyclers, as well as facilities that produce lead-oxide, brass, and bronze. Under Rule 1420, concentrations from lead-related facilities may not exceed 1.5 micrograms per cubic meter ($\mu\text{g}/\text{m}^3$), averaged over 30 days. This concentration reflects the current California ambient air quality standard for lead, and it is generally comparable with the level of the previous federal standard ($1.5 \mu\text{g}/\text{m}^3$ averaged over a calendar quarter).

Under Rule 1420, the District operates a network of source-oriented monitors around four separate facilities. The monitors are located at or beyond the fence-line of the facility, and the District indicates they comply with U.S. EPA siting and operating criteria for a microscale monitoring site. While lead samples are generally collected on a 1-in-6 day schedule, samples may be collected more frequently at sites with high concentrations. Table 1 provides a summary of design values for the District's source-oriented monitors. Design values violate the federal standard near two facilities: Trojan Battery Company and Exide Technologies. The value for the Exide monitoring site is by far the highest.

TABLE 1
LEAD DESIGN VALUES FOR SOURCE-ORIENTED MONITORS

Facility Name	City	Monitor	3-Month Period	Lead Design Value*
<i>Daelco Div, Quenell Inc.</i>	<i>City of Commerce</i>	<i>LA Paper Box, 61st Street</i>	<i>Jan-Mar 2006</i>	<i>0.14 µg/m³*</i>
<i>Quemetco, Inc.</i>	<i>City of Industry</i>	<i>Closet World, 500 S. 7th Street</i>	<i>Jan-Mar 2006</i>	<i>0.09 µg/m³</i>
<i>Trojan Battery Co.</i>	<i>Santa Fe Springs</i>	<i>Uddeholm, 9331 Santa Fe Springs Road</i>	<i>May-Jul 2007</i>	<i>0.18 µg/m³</i>
<i>Exide Technologies</i>	<i>Vernon</i>	<i>Rehrig-Pacific Street</i>	<i>Jan-Mar 2008</i>	<i>2.49 µg/m³</i>

* Data available for LA Paper Box monitor from January 2006 through May 2006 only. Data available for Closet World monitor from January through December 2006 and October through December 2008. Data available for Rehrig-Pacific Street monitor from mid-November 2007 through mid-July 2009.

Exide Technologies is a lead-acid battery recycling facility. The most reliable estimate puts lead emissions from this facility at about 2 tons per year. The District currently maintains a network of three lead monitors around Exide. All three are located beyond the fence-line, in publically accessible areas. In addition, the monitors are located near points of modeled maximum concentration. Based on violations of the State lead standard, as specified in their Rule 1420, the District issued violation notices to Exide for exceeding the limit during five consecutive months (December 2007 through April 2008). Concentrations during this time period also violated the previous federal standard. Since this time, District monitors show concentrations that are much lower, although they still violate the revised lead standard of 0.15 µg/m³ calculated as a rolling three-month average.

Lead particles are relatively heavy, and tend to settle out quickly after they are emitted. As a result, the highest concentrations occur in the immediate vicinity of an emission source. The U.S. EPA final lead rule states that data from nonsource-oriented monitors can be helpful in determining the appropriate nonattainment area boundary. In addition to the source-oriented monitors summarized above, the District maintains a network of six nonsource oriented lead monitors in Los Angeles County, two in Riverside County, and two in San Bernardino County. Although data are not currently available for 2008, data from these nonsource monitors are available for 2005 through 2007. Table 2 provides a summary of design values for the nonsource-oriented sites. The design values range from 0.01 µg/m³ to 0.03 µg/m³, demonstrating the significant difference in concentrations measured by the nonsource-oriented monitors versus the source-oriented monitors. This provides additional support for limiting the geographic extent of the recommended nonattainment area.

TABLE 2
LEAD DESIGN VALUES AT SOUTH COAST
NONSOURCE-ORIENTED MONITORS

Site Name	County	2005-2007 Design Value
Long Beach-East Pacific Coast Highway	Los Angeles	0.02 µg/m ³
Los Angeles-North Main Street	Los Angeles	0.03 µg/m ³
Los Angeles-Westchester Parkway	Los Angeles	0.01 µg/m ³ *
Lynwood	Los Angeles	0.03 µg/m ³
North Long Beach	Los Angeles	0.01 µg/m ³
Pico Rivera **	Los Angeles	0.03 µg/m ³ *
Riverside-Magnolia	Riverside	0.01 µg/m ³
Riverside-Rubidoux	Riverside	0.02 µg/m ³
San Bernardino-4 th Street	San Bernardino	0.02 µg/m ³ *
Upland	San Bernardino	0.02 µg/m ³ *

* Data are not complete for some months during the three-year period.

** Reflects data from two sites: Pico Rivera (Jan 2005-Apr 2005) and Pico Rivera-4144 San Gabriel (Sep 2005-Dec 2007).

In summary, ARB staff recommend the South Coast portion of Los Angeles County be designated as nonattainment for the 2008 federal lead standard based on data from the Exide Rehrig-Pacific Street monitor. Although concentrations have dropped over the last year, they still violate the 2008 federal lead standard. Design values for all nonsource-oriented monitors in Los Angeles County, as well as in the rest of the Air Basin, show compliance with the revised standard. The District's Rule 1420 provides a mechanism for reducing emissions from lead-related industrial sources. Although the concentration limit currently specified in the Rule reflects the California lead standard, the District is planning to revise Rule 1420 to be more consistent with the level of the 2008 federal lead standard (0.15 µg/m³). The recommended nonattainment area falls under the jurisdiction of the South Coast Air Quality Management District, the agency responsible for administering and enforcing Rule 1420.